

REMARKS

This is in full and timely response to the Office Action mailed on February 7, 2006.

Because May 7, 2006, three months after the mailing date of the Office Action, falls on a Sunday, the period for response is extended to May 8, 2006, which is the next day that is neither a Saturday, Sunday nor a Federal holiday in the District of Columbia.

Reexamination in light of the following remarks is respectfully requested.

Claims 1-16 are present within the above-identified application, with claims 1, 11, and 12 being independent.

No new matter has been added.

Rejoinder

Paragraph 2 of the Office Action indicates that claims 12-18 have been withdrawn from consideration as being drawn to a non-elected invention.

Rejoinder of claims 12-18 is respectfully requested.

Drawing objection

Paragraph 4 of the Office Action indicates an objection to the drawings.

The Office Action contends that both reference number 6 and reference number 7 are described within the specification as a “key pad” (Office Action at page 3).

In response, while not conceding the propriety of this objection and in order to advance the prosecution of the above-identified application, the specification has been amended.

Withdrawal of this objection is respectfully requested.

Allowable subject matter

At least for the reasons provided hereinbelow, no proper rejection is found at least against claims 2 and 9. Accordingly, at least claims 2 and 9 are deemed to contain allowable subject matter.

Allowance of the claims is respectfully requested.

Rejection under 35 U.S.C. §112, second paragraph

Paragraph 6 of the Office Action indicates a rejection of claims 1, 8, and 11 under 35 U.S.C. §112, second paragraph.

In response to this rejection, please hold this rejection in abeyance at this time until the other art rejections have been overcome. At that stage, an appropriate response may be addressed if still deemed necessary by the Examiner.

Rejection under 35 U.S.C. §103

Paragraph 8 of the Office Action indicates a rejection of claims 1, 3, 4, 7, 8, 10 and 11 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent Application Publication No. 2002/0063109 to Hayashizaki in view of U.S. Patent No. 6,451,143 to Nishi and Japanese Application Publication No. 07-164728 to Takemura et al. (Takemura).

Paragraph 12 of the Office Action indicates a rejection of claim 5 under 35 U.S.C. §103 as allegedly being unpatentable over Hayashizaki in view of Nishi and Takemura, and in further view of U.S. Patent No. 4,082,635 to Fritz et al. (Fritz).

Paragraph 13 of the Office Action indicates a rejection of claim 6 under 35 U.S.C. §103 as allegedly being unpatentable over Hayashizaki in view of Nishi and Takemura, and in further view of U.S. Patent No. 4,937,118 to Inagaki et al. (Inagaki).

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made, then a *new non-final Office Action* is respectfully requested.

This rejection is traversed at least for the following reasons.

Claim 1 - Claim 1 is drawn to a method of producing a decorative molded object which is a resin molded object decorated with a color design image representing a letter, a symbol, a figure, or the like, comprising the steps of:

printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet;

transferring the coloring agent layer on the substrate sheet onto a resin molded object to be decorated;

peeling the substrate sheet with the transferred coloring agent layer left on the resin molded object to form a color design image layer on the resin molded object; and

curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer.

Hayashizaki - Hayashizaki arguably teaches a key top and method for manufacture thereof that includes a transfer substrate 1 and a second transparent printed layer 2 (Hayashizaki at Figure 1(a)).

Hayashizaki arguably teaches a metalizing layer 3 and a first transparent printed layer 4, wherein the first transparent printed layer patterned as letters, numbers, symbols, pictures, and the like (Hayashizaki at Figure 1(c), paragraph [0009]).

However, Hayashizaki fails to disclose, teach, or suggest the second transparent printed layer 2 as being porous.

Thus, Hayashizaki fails to disclose, teach, or suggest printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Hayashizaki arguably teaches that upon completion of the transfer, as shown in FIG. 1(g), the transfer substrate 1 is removed which makes it possible to obtain a key top 7 with a transfer layer laminated thereon (Hayashizaki at Figure 1(g), paragraph [0034]).

However, Hayashizaki fails to disclose, teach, or suggest the application and deposition of a transparent resin liquid onto the backside of the second transparent printed layer 2 (Hayashizaki at Figure 1(g)). In this regard, the Office Action notes that Hayashizaki does not disclose curing a transparent resin layer (Office Action at page 5).

Thus, Hayashizaki fails to disclose, teach, or suggest curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer.

Nishi - Nishi arguably teaches a method for manufacturing key pad with rigid resin key top.

However, the Office Action fails to show where within Nishi is found the step of printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Moreover, Nishi arguably teaches that a UV reactive hardening resin (3045 supplied by Three Bond Co., Ltd.) 7 is applied to a key top adhesion portion 6 of the key pad 5 by screen printing method (Nishi at Figure 2, column 5, lines 18-21).

Nishi arguably teaches that graphic printing 9 is made with printing ink (Sericol 13 supplied by Teikoku Ink Co., Ltd.) on the back of a rigid resin key top 8 formed with translucent polycarbonate resin (Panlite L1 225L supplied by Teijin Kasei Co., Ltd.), then this rigid resin key top 8 and the key top adhesion portion 6 are adhered, and UV having main wavelength 365 nm is irradiated from the key pad side by the intensity of 1000 mW/cm² for 15 seconds to adhere them (Nishi at Figure 2, column 5, lines 21-28).

Nishi arguably teaches that if translucent resin is used as reactive hardening resin and at least a part of the rigid resin key top member is made of translucent member, it can naturally be composed to allow to recognize through them characters, numerals, symbols, pictures or the like realized on the key pad surface, graphics made by disposing light masking portion and cutting out characters, numerals, symbols, pictures or the like, the color or the others (Nishi at column 4, lines 12-18).

Nevertheless, the Office Action fails to show where within Nishi that there is to be found a transparent resin liquid.

Thus, the Office Action fails to show that the step of curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer is found within Nishi.

Takemura - Takemura arguably teaches a transfer foil and production of plastic molded article having multi-color, light-transmitting open pattern.

Takemura arguably teaches the presences of a substrate sheet 1, a masking layer 2, and light-transmitting color layers 31, 32 (Takemura at Drawings).

However, Takemura fails to disclose, teach, or suggest light-transmitting color layers 31, 32 as being porous.

Thus, Takemura fails to disclose, teach, or suggest a step of printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Furthermore, Takemura fails to disclose, teach, or suggest the presence of a transparent resin liquid.

Thus, Takemura fails to disclose, teach, or suggest a step of curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer.

Fritz and Inagaki fail to disclose, teach, or suggest a method of producing a decorative molded object.

Claim 11 - Claim 11 is drawn to a method of producing a decorative molded object which is a resin molded object decorated with a color design image representing a letter, a symbol, a figure, or the like, comprising the steps of:

printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet;

curing, after application and deposition onto the coloring agent layer, a transparent resin liquid to thereby form a transparent resin layer;

transferring the transparent resin layer and the coloring agent layer on the substrate sheet onto a resin molded object to be decorated; and

peeling the substrate sheet with the transferred coloring agent layer left on the resin molded object to form a color design image layer on the resin molded object.

Hayashizaki - Hayashizaki fails to disclose, teach, or suggest the second transparent printed layer 2 as being porous.

Thus, Hayashizaki fails to disclose, teach, or suggest the step of printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Hayashizaki arguably teaches that upon completion of the transfer, as shown in FIG. 1(g), the transfer substrate 1 is removed which makes it possible to obtain a key top 7 with a transfer layer laminated thereon (Hayashizaki at Figure 1(g), paragraph [0034]).

However, Hayashizaki fails to disclose, teach, or suggest the application and deposition of a transparent resin liquid onto the backside of the second transparent printed layer 2 (Hayashizaki at Figure 1(g)).

Thus, Hayashizaki fails to disclose, teach, or suggest curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer.

The Office Action notes that Hayashizaki does not disclose curing a transparent resin layer (Office Action at page 5).

Thus, Hayashizaki fails to disclose, teach, or suggest the step of transferring the transparent resin layer and the coloring agent layer on the substrate sheet onto a resin molded object to be decorated.

Nishi - Nishi arguably teaches a method for manufacturing key pad with rigid resin key top.

However, the Office Action fails to show where within Nishi is found the step of printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Moreover, Nishi arguably teaches that a UV reactive hardening resin (3045 supplied by Three Bond Co., Ltd.) 7 is applied to a key top adhesion portion 6 of the key pad 5 by screen printing method (Nishi at Figure 2, column 5, lines 18-21).

Nishi arguably teaches that graphic printing 9 is made with printing ink (Sericol 13 supplied by Teikoku Ink Co., Ltd.) on the back of a rigid resin key top 8 formed with translucent polycarbonate resin (Panlite L1 225L supplied by Teijin Kasei Co., Ltd.), then this rigid resin key top 8 and the key top adhesion portion 6 are adhered, and UV having main wavelength 365 nm is irradiated from the key pad side by the intensity of 1000 mW/cm² for 15 seconds to adhere them (Nishi at Figure 2, column 5, lines 21-28).

Nishi arguably teaches that if translucent resin is used as reactive hardening resin and at least a part of the rigid resin key top member is made of translucent member, it can naturally be composed to allow to recognize through them characters, numerals, symbols, pictures or the like realized on the key pad surface, graphics made by disposing light masking portion and cutting out characters, numerals, symbols, pictures or the like, the color or the others (Nishi at column 4, lines 12-18).

Nevertheless, the Office Action fails to show where within Nishi that there is to be found a transparent resin liquid.

Thus, the Office Action fails to show that the step of curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer is found within Nishi.

Nevertheless, the Office Action fails to show where within Nishi that there is to be found a transparent resin layer.

Thus, the Office Action fails to show that the step of transferring the transparent resin layer and the coloring agent layer on the substrate sheet onto a resin molded object to be decorated is found within Nishi.

Takemura - Takemura arguably teaches a transfer foil and production of plastic molded article having multi-color, light-transmitting open pattern.

Takemura arguably teaches the presences of a substrate sheet 1, a masking layer 2, and light-transmitting color layers 31, 32 (Takemura at Drawings).

However, Takemura fails to disclose, teach, or suggest light-transmitting color layers 31, 32 as being porous.

Thus, Takemura fails to disclose, teach, or suggest a step of printing a color design image on an image carrying layer, which is porous and is arranged on a substrate sheet, with an output apparatus that collectively outputs color design data to form a coloring agent layer for displaying the color design image on the substrate sheet.

Furthermore, Takemura fails to disclose, teach, or suggest the presence of a transparent resin liquid.

Thus, Takemura fails to disclose, teach, or suggest a step of curing, after application and deposition onto the color design image layer, a transparent resin liquid to thereby form a transparent resin layer.

Takemura also fails to disclose, teach, or suggest the presence of a transparent resin layer.

Thus, Takemura fails to disclose, teach, or suggest a step transferring the transparent resin layer and the coloring agent layer on the substrate sheet onto a resin molded object to be decorated.

Fritz and Inagaki fail to disclose, teach, or suggest a method of producing a decorative molded object.

Withdrawal of these rejections and allowance of the claims is respectfully requested.

Paragraph 14 of the Office Action indicates a rejection of claims 1-3 and 7-11 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent Application Publication No. 2003/0221944 to Arai et al. (Arai) in view of Nishi.

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made, then a new non-final Office Action is respectfully requested.

This rejection is traversed at least for the following reasons.

The present application was filed after November 29, 1999. The present application and Arai were, at the time the invention of the present application was made, commonly owned by Polymatech of Tokyo, Japan. But pursuant to 35 U.S.C. §103(c) and M.P.E.P §706.02(l)(1), Arai is disqualified as prior art for the purpose of any rejection made under 35 U.S.C. §103. Thus, the rejection of claims under 35 U.S.C. §103 using Arai should be withdrawn at least for this reason.

Withdrawal of these rejections and allowance of the claims is respectfully requested.

Conclusion

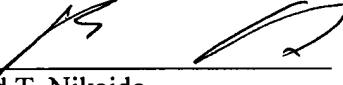
For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753 or the undersigned attorney at the below-listed number.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Dated: May 8, 2006

Respectfully submitted,

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